

9. Max

Program Name: Max.java

Input File: max.dat

Max is working on planning a Game Night for him and his friends and has worked out all of the details for the entire night except for one thing: the games! Max, in an attempt to ensure that his friends all have the best time possible during their time together, has already sent out a survey to his friends and received data on which games his friends enjoy the most, and has averaged the score for each game. Max is interested in selecting a set of games which will maximize the enjoyment experienced by his different friends. However, seeing how no one in the groups enjoys only playing a portion of a game, each game selected for the night must be completed in their entirety. However, the group is able to play any given game as many times as they would like, so long as each time they play it, they have enough time to play it to its entirety. Help Max in determining which games he should select for the night given a total amount of time available for the night, as well as a list of games which each have a perceived enjoyment and required playing time.

Input: The first line of input will consist of a single integer n ($1 \leq n \leq 50$) denoting the number of testcases to follow. The next n testcases will consist of three lines. The first line will consist of two space-separated integers. The first of these integers is m ($1 \leq m \leq 100$), denoting the number of games that are to follow, labeled game 1 through game m . The second of these integers is T ($0 \leq T \leq 1440$), denoting the total amount of time that the Game Night will run for. The next line will consist of a string of m space-separated integers denoting the duration ($1 \leq t_i \leq 500$) of the m games. The next line will consist of a single of m space-separated floating-point values (expressed to two decimal places) denoting the perceived enjoyment value ($0 \leq v_i \leq 10$) of the m games. If a duration is the i^{th} element in the space-separated list of integers, then it has a perceived enjoyment value equal to the i^{th} element in the space-separated list of floating-point values.

Output: For each of Max's n requests, on its own line, print the maximum total average perceived happiness obtainable during the Game Night. If this total is equal to 0, then instead print out the string "Should have picked better games...". Floating point numbers should be expressed to two decimal places of precision.

Sample input:

```
3
5 300
60 200 15 5 33
6.43 9.31 3.41 2.36 6.54
6 90
200 120 105 115 300 91
7.82 4.50 3.94 5.86 10.00 9.99
2 101
100 1
9.99 0.01
```

Sample output:

```
141.60
Should have picked better games...
10.00
```